

WHAT IS CLAIMED IS:

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1. An electric adapter connected between an electric socket and an electric appliance, for indicating various electrical parameters of the electric appliance, said electric adapter comprising:
 - a housing;
 - a plug arranged on a rear panel of the housing for inserting into an electric socket;
 - an outlet socket formed on the housing, whereby the electric appliance can be electrically connected to the outlet socket;
 - a control circuit arranged in the housing for detecting the electrical parameters of the electric appliance during working; and
 - a display unit arranged on the housing for displaying the electrical parameters received and processed by the control circuit.
 2. The electric adapter as claimed in claim 1, wherein the electrical parameters indicated on the display unit comprises present time, voltage value, current value, watt, kilowatt-hour, apparent power value, power factor.
 3. The electric adapter as claimed in claim 1, further comprising a power on/off switch arranged on the housing for turning on/off the adapter and a displaying mode selection switch arranged on the housing.
 4. The electric adapter as claimed in claim 1, wherein the control circuit comprises:
 - a voltage detecting circuit for detecting a voltage value supplied to the electric appliance;
 - a current detecting circuit for detecting a current value supplied to the electric appliance;
 - a time base signal generator for providing a time base signal;
 - a central processing unit for receiving the voltage value generated by the voltage detecting circuit and the current value generated by the current

detecting circuit, and calculating the electrical parameters based on the voltage value, current value and time base signal generated by the time base signal generator.

5 5. The electric adapter as claimed in claim 4, wherein the voltage detecting circuit comprises:

a voltage amplifier electrically connected to the output outlet of the adapter in parallel connection for generating an analog voltage signal;

10 a voltage zero-crossing detecting circuit for detecting a zero-crossing signal of the analog voltage signal and then sending the zero-crossing signal to the central processing unit; and

an analog-to-digital converter for converting the analog voltage signal generated by the voltage amplifier into a digital voltage value, and then sending the digital voltage value to the central processing unit.

15 6. The electric adapter as claimed in claim 4, wherein the current detecting circuit comprises:

A2 7 a current amplifier for detecting a current flow supplied to the electric appliance, and then generating an analog current signal; and

20 an analog-to-digital converter for converting the analog current signal generated by the current amplifier into a digital current value, and then sending to the central processing unit.